Notebook Series -- Notebooks by Edison and Other Experimenters
Disc Record Book No. 21
Notebook, N-17-04-11

This notebook was used by Edison, William W. Dinwiddie, Archie D. Hoffman, and possibly other experimenters during April-June 1917 for notes on efforts to produce a perfect disc record blank. The entries pertain primarily to a sequence of experiments numbered from 1472E through 1567E. Included are tests of experimental lots of record blanks constructed by different methods or prepared with different ingredients, along with "drop" tests intended to determine the durability of disc records by dropping them numerous times on the floor. Between experiments 1495 and 1496 is a summary by Dinwiddie of previous "Rosin Blank experiments," numbered from 1470 through 1486. Many of the entries are in the form of instructions by Edison or Dinwiddie describing the experimental records wanted, accompanied by evaluations of the test records produced. Flaws and successful results are both noted, along with comments on the durability and thickness of the records. One entry refers to the possible use of nickel plating (later adopted) on the face of the copper record molds. The last entry announces the "discovery of an important principle," which is pursued in Book No. 22: the powder in the rubber-packing press must be considered as a mixture of powder and air, and the air must somehow be eliminated. Inserted into the book is one note by Edison, as well as some calculations by an unidentified experimenter. The front cover is labeled "Disc Records" and "21"; the back cover is labeled "21." The pages are unnumbered. Approximately 150 pages have been used.

Drop test on 1472-E

1 —	1
2 —	3
3 —	2
4 —	20
5 —	17
6 —	2
	45

Look after ~~X~~ 1495 for resume of Rosin Blank experiments.

This lot made out of the cut off from all previous 1472 Experiments. Little better than sweepings. all Rosins mixt. made morning after fire.

1472-E

57 lbs wood -
43 lbs chalk -
2 lbs lamp black -
15 lbs Rosin.
50 lbs denat. alcohol.

dry -

grind with equal quantity of reground blanks -

Took fire on [illegible] to atmosphere [illegible] Oil [illegible] smoke [illegible] distance -

95.9% OK on 7986 Records.
96.9% OK on 620 Records
95.9% OK on 2360 "
95.8% OK on 4013 Records
91.1% 14,64 Blanks.
68.3% OK out of 1562 Records
92.3% OK on Blanks.

1473-E

OK	x	98.1% OK at 979 Records
OK	x	76.5% OK as blanks.
OK	x	
OK	x	
OK	x	
OK	x	
OK	x	
OK	x	
OK	x	
OK	x	
OK	x	
OK	x	

100%

100%

1473-E

57 lbs. [illegible]
43 lbs. [illegible]
3 lbs. [illegible]
12 lbs. [illegible]
50 lbs. [illegible]

One [illegible]

Drop test
1 — 4 times
2 — 10 " "
3 — 9 " "
4 — 2 " "
5 — 1 " "
6 — 8 " "
34 times

Handles with tanning solution
Blades raised 1/16 in above Mould
ring 1/4 in strike off bare Handles
clean
Monitored 1261-E Schedule.
1308 Made
8 Pull Outs
1300 OK 99.4%. Blanks Rejd Only.

1474-E [illegible]

[illegible]

[illegible] Dec 1 52

[illegible]

Blanks look fine

1475 E

Chuno Var

1 Cotton flock.
6 Chalk
1 Rosin -

4½ alcohol to 1 Rosin

12½ lbs cotton Floc -
75 lbs chalk -
2 lbs lamp black -
13½ lbs Rosin -
56¼ lbs alcohol -

1476 B Chimo Var

1 Cotton flock
6 Chalk
1 1/4 Rosin —

4 1/2 alcohol to 1 Rosin

12 1/2 lbs Cotton flock
75 lbs chalk -
2 lbs lamp black -
15 lbs 100% Rosin
67 1/2 lbs Alcohol.

Very Heavy Blanket

II good
III V good.
II Very fine one of quickest ever heard
I dead number

If moulds were all good this blanket would be best yet seems to have bubbles like Cocoanuts more than Rag

1477 E

1 Cotton flock
6 Chalk
1 1/2 Rosin —

4 1/2 alcohol to 1 Rosin

12 1/2 lbs Cotton flock
75 lbs Chalk
2 lbs lamp black
18 3/4 lbs Rosin.
84 lbs 6 oz Alcohol.

Blanks shaved crafts 2 lbs Qx.7
& Baked. none printed all cracked.

CU

1478-E

Take 5 blanks #1417-E
have them Varnish with Shellac
Varnish

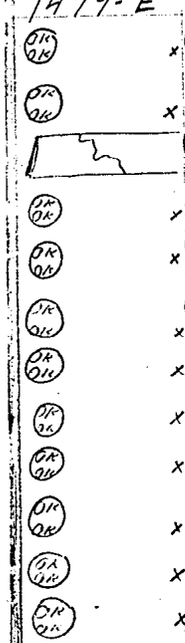
Print three of them on one
Regular Recording Machine &
1 on the Other Test Mould.

Save 1 Blank to refinish
with Shore Rite —

Glass shows marble, also showing no
grooves to restrain. Blank flows
towards Edge rather. Checks
surface not good not near as
good as a record on same
blank — Blank not
promising —

4/11/17.

1479-E



Drop list on 1479-E

1 —	8	times
2 —	20	" "
3 —	16	" "
4 —	15	" "
5 —	9	" "
6 —	10	" "
	78	" "

1479-E 69 A. 5/3/17

69.6 % OK out of 3830 records

82.3 % OK on Blanks

1479 EWG 5/4/17

61.2 % OK out of 1126 records.

84.4 % OK on Blanks.

1479-E 80 A. 45.5 OK out of 547 Records.

80.2 % OK on Blanks

1479-E 82. A 23 % OK out of 513 Records

72 % OK on Blanks

1479-E 83 A 12% OK out of 611 Records

83.6 % OK on Blanks

1479-E 84 A 11.8% OK out of 534 records

82.2 % OK on Blanks.

91 % 100 %

91 % 100 %

1479-E-B. 46. % Records OK. 4/24/17.
Blanks. 73.8 % OK.

1479-E-E 56.2 % Records OK 4/24/17
Blanks. 87.3 % OK.

1479-E

Dust of 1472-E except 75% Torpo powder and 25% ground Records

57 lbs wood
43 lbs chalk
2 lbs lamp black
15 lbs Rosin
50 lbs denatured alcohol

Fry and grind three parts of this with one part of reground Blanks

96.3 % OK out. 164 Records.

96.% OK out of 40 Records

92.% OK on Blanks

Only 79 % OK. on Blanks.

8/0 Records make with E Rosin only 76.7 % OK.

97.6 % OK out 737 Records

92.6 % OK on Blanks.

1479-E W.S. 68.1% out of 301 Records.

1479-81 A 20.1 % OK out 1012 records. 86.4 % OK on Blanks.

1479-79 A. 17.1 % OK out of 357 records 72.2 % on Blanks.

1479-78 A. 34.7 % OK out of 568 records. 84.7 % OK on Blanks.

(15)

4/11/17

1480-E

OK	OK	x
OK x	OK	x
(8)	OK	x
OK	OK	x
OK x	OK	x
OK	OK	x
OK x	OK	x
OK x	OK	x
OK x	OK	x
OK x	OK	x
[illegible]	[illegible]	x
[illegible] x	OK	x
[illegible] x		

91% 100%

91% 100%

Drops test on 1480-E

1. — 9 times.
2. — 2 " "
3. — 11 " "
4. — 12 " "
5. — 8 " "
6. — 9 " "

51 " "

1480-E
57 lbs wood -
43 lbs chalk -
2 lbs lamp black -
13 lbs rosin -
50 lbs alcohol -

After drying - mix in grinder with 25% of old reground blanks.

1 part old blanks
3 parts above -.

Make one drier full -

97.9% OK out of 1526 Records

85.6 % on Blanks

(Blanks 2009 made May 7 100% OK. in blank dept. - see 1498-E)

1481-E

4/16/1917

Drop test on 1481-E

1. — 2 times
3 — 3 " "
3 — 5 " "
4 — 4 " "
5 — 3 " "
6 — 3 " "
20 " "

OK ×
OK ×
OK ×
OK ×
OK ×
OK ×
OK ×
OK ×
OK ×
OK ×
OK ×

91%

91%

1481-E - 1261-E Schedule.

60 lbs wood
40 lbs chalk
2 lbs lampblack
13 lbs rosin
50 lbs alcohol

After drying mix in grinder with 25% of acid reground blanks.

1 part old blanks
3 parts above.

make one drier full

95.7% O.K. Over 2

1,275 Inspected
17. Broken Rounds.

92.1% on Blanks.

4/18/17

-1482-E

OK	×
OK	×
OK	×
OK	×
OK	×
OK	×
OK	×
OK	×
OK	×
OK	×
OK	×
OK	×
OK	×
OK	×

100%

91%

Dropped before 1482-E

1. 5 times
2. 3 " "
3. 4 " "
4. 4 " "
5. 8 " "
6. 1 " "

25 times

1482-E

57 lbs Wood
43 " chalk
2 " Lamp Black
13 " Resin
50 " Alcohol

After Drying - compress grinds with 10% of old reground blanks

Moulds washed with turpentine solution blades raised 1/16 in. above Mold Ring scraped 1/4 in strike off. leave Mold 2 above Mold of 1261-E Schedule.
1521 Made

100% OK

97.7% OK out of 1123 Records

74.9% OK on Blanks.

C2W

1483-E

OK	x	Drop Left over 1483-E
OK	x	1 — 5 times
OK	x	2 — 6 " "
OK	x	3 — 4 " "
OK	x	4 — 6 " "
OK	x	5 — 7 " "
OK	x	6 — 4 " "
		32 " "
OK	x	
OK	x	
OK	x	
OK	x	
		Order Blank
OK	x	

100 %
91 %

1483-E

57 lbs. Wood.
43 lbs. chalk.
2 lbs. lamp black.
14 lbs. Rosin
50 lbs. Alcohol.

After drying ship in grinder with 10 % of old reground blanks

Mixed grated with tanning solution Made raised 1/6 in above Mixed Cones ramp 1/4 in trade off boxes Mixed 1261-E Labeled.

1458 Made
8 Pull Out
1450 OK 99 - % OK.

96.8 % OK out of 1142 Records.

81 % On Blends.

1484-E   4/19/17

(OK) x	(OK) x
(OK) x	(OK) x
(OK) x	(OK) x
(OK) x	(OK) x
(OK) x	(OK) x
(OK) x	(OK) x
(OK) x	(OK) x
(OK) x	(OK) x
(OK) x	(OK) x
(OK) x	(OK) x
(OK) x	(OK) x
(OK) x	(OK) x
(OK) x	
100%	100%
100%	100%

Drop test on 1484-E

1. — 9 times
2. — 20 " "
3. — 6 " "
4. — 20 " "
5. — 20 " "
6. — 2 " "

77 " "

5/2/17

Drop test on 1485-E
24 times

1484-E Saturday 5/12/17

(OK) x	(OK) x	Drop test
(OK) x	(OK) x	1 — 3
(OK) x	(OK) x	2 — 4
(OK) x	(OK) x	3 — 1
(OK) x	(OK) x	4 — 6
(OK) x	(OK) x	5 — 6
(OK) x	(OK) x	6 — 4
(OK) x	(OK) x	24 times
(OK) x	(OK) x	
(OK) x	(OK) x	
(OK) x	(OK) x	
(OK) x	(OK) x	
100%	100%	
100%	100%	

1484-E

57 lbs wood fibre
43 lbs chalk
2 lbs lamp black
12 lbs rosin (WG)
54 lbs alcohol.

Make one drier full use tanning solution on moulds, send samples to Miller for drop test, this is a duplicate of 1380 and is the same as 1470 except that it contains a little more alcohol.

89.6% OK out. 1330 Records.

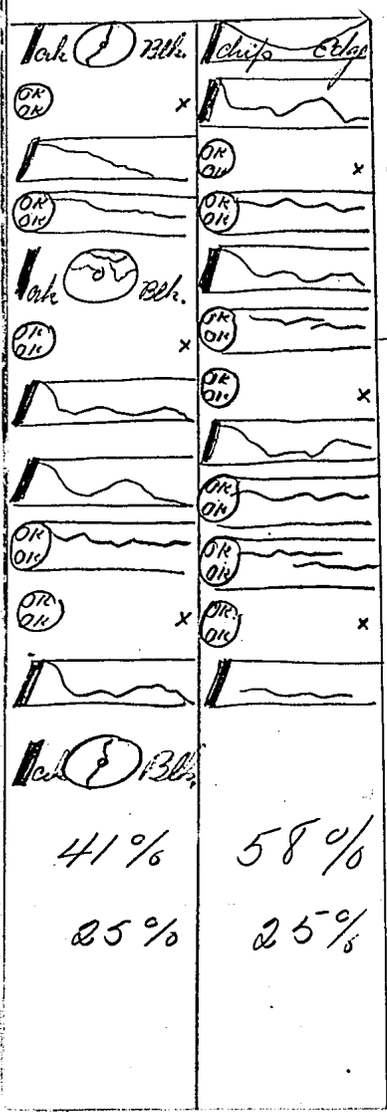
91.1% OK on Blanks. with tanning solution on blank moulds.

duplicate on E. Rosin. Drop test 31 Moulding (Heffner 99.7) Printing 42.7

Duplicate on I. Rosin. " " (99.8)
42.7% OK out of 1895 Records
86.8% OK on Blanks.
44.2% OK out of 1233
89.2% OK on Blanks.

1485-E

4/19/17



41% 58%

25% 25%

Drop test on 1485-E

1.	—	1	times
2.	—	2	" "
3.	—	4	" "
4.	—	1	" "
5.	—	1	" "
6.	—	7	" "
		16	" "

1485-E

57 lbs wood.
43 lbs chalk.
2 lbs lamp black.
15 lbs Resin (WG)
60 lbs denat. alcohol.

After drying mix ~~[illegible]~~ in grinder with reground blanks as follows:

3 parts above
1 part reground blanks

Make one drier full.
send two rounds to miller for inspection and drop test.

82.2% OK on 1305 Records.

93.2% on Blanks.

1486-E 4/25/12

OK	x	Drop test 1486-E
OK	x	1 — 5 times
		2 — 1 " "
OK	x	3 — 3 " "
OK	x	4 — 2 " "
		5 — 1 " "
OK	x	6 — 3 " "
OK	x	15 " "
OK	x	78.1% OK Records
OK	x	73.5% Blades OK.
OK	x	
OK	x	
OK	x	
OK	x	
100%		
100%		

1486-E

57 lbs wash.
43 " chaff.
2 " lauric Acid
15 " Rosin (WG)
50 " Denatured Alcohol.

Mix 25% ground blades in mixes with wood + chaff.

1487-E 5/1/17

OK OK Sev Spot 1	Dried test on 1487-E
OK OK Sev 1	1 — 15 times
OK OK Sev 1	3 — 20 " "
OK OK Sev 1	3 — 18 " "
OK OK Sev 1	4 — 8 " "
OK OK Sev 1	5 — 1 " "
OK OK Sev 1	6 — 10 " "
	73
OK OK Sev 3	
OK OK Sev 1	Notice we are supplying [illegible]
Bad Sev Spot	[illegible] cuts the Sevs
Bad Sev Spot	8.2% OK out of 865 Records
Bad Sev Spot	88 5 OK on blank
OK OK Sev 1	
Bad Sev Spot	
66%	

1487-E

57 lbs wood.
43 lbs chalk.
2 lbs campblack.
18 lbs Rosin.
80 lbs alcohol.
36 lbs old reground blank.
all put in mixer —
Make one drier full.

1488-E 5/1/17

Date Lot no [illegible]

1	2	turns
2	3	" "
3	5	" "
4	4	" "
	9	" "
	20	" "
	24	" "

OK OK — x

OK OK — x

OK OK — x

OK OK — x

OK OK — x

OK OK — x

OK OK Broken Edge

66%

58%

1488-E

A
- 57 lbs wood
- 43 lbs chalk
- 2 lbs lampblack
- 12 lbs resin (E)
- 54 lbs alcohol

} make 3 drums full

above is same as 1484-E

B
- 100 lbs old ground blanks
- 6 lbs rosin (E)
- 30 lbs alcohol

} make 1 drum

Mix in grinder 1 part B to 3 parts A

1489-E

Dup of 1461-E Except use I resin instead of W.W. to make Arsenate of lead.

Make a Dear Test

4/30/17

#1		#2	
OK OK	x	OK OK	x
OK OK	x	OK OK	x
OK OK	x	OK OK	x
OK OK	x	OK OK	x
OK OK	x	OK OK	x
OK OK	x	OK OK	
OK OK	x	OK OK	x
OK OK	x	OK OK Low Spots	
OK OK	x	OK OK	x
OK OK	x	OK OK	x
OK OK	x	OK OK	x
OK OK	x	OK OK	x
OK OK	x		
100%		100%	
100%		83%	

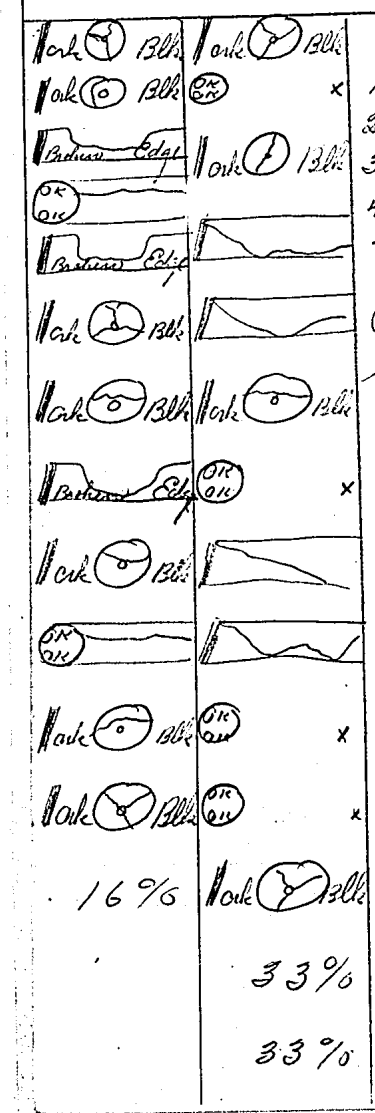
Printed regular work Apr. 24.

1490-E

34 Records of 1479-E
Rosin Blanchi
Inspected & put 12 on
Cupboard in Building #4
& 12 up in Music Room
for time test April 30, 1917
time 5 25 P.M.

C37J

1491-E 5/3/17



1. — 2
2 — 9.
3. — 4
4. — 6
21 times

Only had 4 good record for drop test

1491-E

Same as 1487-E but with less Rosin

57 lbs wood
43 lbs chalk
.2 lbs lampblack
17 lbs Rosin
76 lbs. alcohol
36 lbs old reground blanks.

all put in mixer. and mixed then gum added.

Make one drier full.

26.2% OK out of 653 Records
31.9% OK. out of 335 Records. 5/3/17
58.1% on blanks.

1492-E

5/3/17.

Ok (8) Blk.	OK OK	×
OK OK ×		
OK OK ×	OK OK	×
OK OK ×		
Ok (8) Blk.	Ok (8) Blk	
OK OK ×	OK OK	×
OK OK ×	OK OK	×
OK OK ×		
Ok (8) Blk		
OK OK ×	OK OK	×
Ok (8) Blk	OK OK	×
OK OK ×	OK OK	×
66%	OK OK	×
	Ok (9) Blk.	
66%		
	66%	
	66%	

Drop test 1492-E

1 — 3
2 — 2
3 — 2
4 — 4
5 — 7
6 — 4
22 times

1492-E

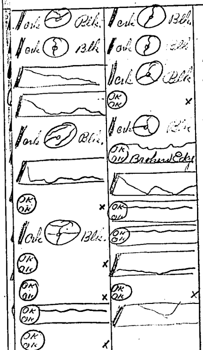
57 lbs wood.
43 lbs chalk.
2 lbs lampblack.
13 lbs Rosin.
2 lbs Shellac.
50 lbs denat. Alcohol.

dry and grind 3 parts of this with one part of unground blanks,

50 ½ % OK out of 1405 Recvd. 5/4/17
90% OK on blanks.

C417

1493-E 5/3/17.



41 %	41 %
33 %	16 %

Drop test on 1493-E

1 —	6 times
2 —	5 "
3 —	5 "
4 —	5 "
5 —	13 "
6 —	6 "
	40

1493-E
Same as 1479·E except that soft blanks are reground instead of old records. — we have been speaking of reground records as reground blanks. —

38 2 % OK out of 263 Records. 5/4/17
82 2/3 % OK on blanks.

1494-E 5/3/17.

OK OK x	Work (8) Blk
Work (L) Record	OK OK x
OK OK x	OK OK x
OK OK x	
OK OK x	OK OK x
OK OK x	OK OK x
OK OK x	OK OK x
OK OK x	OK OK x
OK OK x	OK OK x
OK OK x	
OK OK x	OK OK x
OK OK x	Work (9) Blk
91%	66%
91%	66%

Drop test on 1494-E.

1 — 4
2 — 2
3 — 7
4 — 20
5 — 9
6 — 6
48 times

1494-E
57 lbs wood fiber.
43 lbs chalk.
2 lbs lamp black. duplicate of 1480-E
13 lbs Rosin. 3 rosin
50 lbs alcohol.

Dry and grind three parts of this with one part of regrounds records.

52.4% O.K. out of 1358 Records 5/3/17.
76.1% on blanks

C45]

1495-E 5/5/17

OK OK	x		
OK OK	x	OK OK	x
OK OK		OK OK	x
OK OK	x	OK OK	x
OK OK	x	Ink Blk	
OK OK	x	OK OK	x
OK OK		OK OK	x
OK OK	x		
Ink Blk		OK OK	x
OK OK	x	OK OK	x
		OK OK	x
		OK OK	x
Ink Blk			
75%		75%	
58%		75%	

Drop test

1 — 2
2 — 4
3 — 3
4 — 3
5 — 3
6 — 1
16 times

1495-E 57 lbs wood
43 lbs chalk
2 lbs lamp black
14 lbs Rosin.
50 lbs denatured alcohol.

Dry and grind three parts of this with one part of reground ~~blacks~~, records.

1464 Blanks inspected 58½% OK
778 Records inspected 58% OK.

24th -

1472 was not continued on account of blank being too weak. Drop test below 50

1479 was substituted - having less of old reground powder -

Note that with (J) Rosin → % all thru is greatest - may be a coincidence of circumstances.

Resumé of Rosin Blank Experiments.

See 1380-E in Book 19,

1470-E

Rosin Grade	Blanks made	% O.K. Blank dept.	% O.K. inspection			
				Parafin Oil used powder blank moulds.		
3-13-17 (WW)	858		87.2	2 rounds tested by Mills		91⅔% OK
				Parafin Varnish	197 records	84.8% OK
3-20-17 (WW)	701	71.3	89.6	1471 Varnish	197 "	83⅓% OK
						89.3% OK.
3-21-17 (WW)	755	79.7	68.6	record completely balled up.		
	367	74.9	51.3			

1470 E "Tanning Solution" (see 1380-E) - used on powder blank moulds — also on record moulds.

4-16-17 (WG) 1624 blanks made 98.3 O.K. before beveling.

87.7 O.K. on inspection.

Records 97.1% O.K. Drop test 45.

1472-E "Lubria" used on powder blank moulds.

	Blanks made	Blank dept					
3-19-17 (WW)	383	98.1% OK	375	½ 1471 Varnish	95.4	" "	90.1% ok on printing
			Blank inspection	217 Records	Var.		94% OK.
3-21-17 (WW)	523	97.5	96.7	217 "	1471 Var.		99.1% O.K.
3-24-17 (WG)	1812	92.2	90.3	1508 "	"	"	95.5 "
3-28-17 (K)	683	95.4	92.8	603 "	"	"	92.9 "
3-28-17 (K)	1311	98.8	84.6	1095 "	"	"	96.3 "
3-28-17 (K)	360	98.8					
4-2-17 (J)	1113	99.1	96.2	1090	1471 Var.		94.4 "
4-2-17 (M)	3766	96.1	79.4	734	"		92.2 % O.K.
			79.8	190	"		91.6 "
			86.3	980	"		94.9 "
			96.0	480	"		97.9 "

1473 — Tanning solution stopt sticking to powder blanks moulds but something queered later inspection.

1472 - is half old shellac blanks ground up and gives comparatively little trouble by sticking. but the all-rosin blanks require the tanning solution (See note on 1380-E Book 19)

Resume of Rosin Blank Expts (Cont.)

1472-E	Rosin	Blanks made	Blank dept	Inspection	Records		
4-4-17	(N)	2364	97% OK.	89.8%	798	90.6% OK	
				90.2 "	826	95.8% OK.	
				some missing —			
4-4-17	$(\frac{I}{2}+\frac{N}{2})$	2083	94.7% OK	90.2	569	92.8	"
				87.1	284	94.0	"
				94.2	966	94.0	"
4-9-17	(I)	Record lost ~~90.1%~~		90.1	2083	96.5	"
4-10-17	(I?)	not quite sure about rosin.		82.8	2360	95.9	"
4-10-17	(I?)	" " " " "		95.8	1837	95.8	"
4-11-17	(I?)	" " " " "		91.5	(14,641) total printed		
		Some evidently got in with regular work — — —			7,986	95.9	
					620	96.9	
					4,013	95.8	

1472 abandoned acc of low drop test. for 1479.

1473-E

~~3-26-17 (W.G.)~~ Lubrica (Hydraulic press solution) used on moulds for blanks.

		Blanks made	Blank dept.	inspection	prints		drop test
3-26-17	(W.G.)	874	77.3% OK	97%	655	97.4% OK	34
		Tanning Solution used on moulds for blanks.					
4-16-17	(W.G.)	1308	99.4 "	76.5%	979	98.1 "	34

Resumé of Rosin Blank Expts (Cont.)

1479-E "Tanning solution" used on all.

	Blanks made	Blank Expt	inspection	Prints			drop test
4-9-17 (WG)	1539	96.1%	92.4% ~~76.1%~~ 98%	237 648	97.6 %	OK. "	[redacted] [redacted]
4-19-17 (I)			79%	164	96.3	"	

Following cooled in drier by water in plates to prevent spontaneous combustion when trays are taken out.

							drop test.
4-24-17 (E)	3637	99.1	87.3	2243 prints	56.2 %	OK	23
4-24-17 (B)	1613	99.8	73.8	983	46.0 %	OK	16
4-25-17 (E)	5867		82.3	810	76.7	"	
5-3-17 [redacted] (?)				2,830	69.6	"	

1480-E - 4-11-17 (W.G.?) Rosin moulds treated with paraffine oil.

	made		inspection				drop test.
	1946	99.4%	85.6%	1658 Records	97.9%	OK	51

1481-E 4-13-17 (WG?) Rosin (Oil or lubria on moulds)

made					
1482	98.5	92.1	1275	95.7	20

1482-E 4-18-17 (W.G.) Rosin. (Tanning solution on moulds)

made	Blank Expt.	Inspection			
1521	100%	74.9%	1123	97.7	25

1483-E 4-17-17 (W.G.) Rosin. (Tanning solution.)

made					
1458	99.4	81.0	1246	89.6%	77

good

Tanning solution keeps moulds perfect

difference was attributed to Rosin
Fire occurring in Powder Plants Dept
on Apr 25 upset things so that this
change in cooling drier was forgotten.

May 2-17 { two rounds from powder 1479-E(I) not cooled in drier give 91% O.K. by Mills's inspection. Marked 69 A Hoffman's notation.

Four rounds from same powder cooled in drier give 8%, 41% 33% and 83% resp. Marked 70 A.

Resumé of Rosin Blanks (Continued)

1484-E (W.Cr.) Rosin Tanning Solution used.

	made	Blank dept.	Insp.	prints		drop test
4-18-17 —	1465	99.6	91.1	1246	89.6% OK	77

Drier cooled before taking out powder.

1484-E (E) Rosin. Tanning Solution used.

	made					
4-27-17 —	2302	99.7	86.8	1895	42.7%	31

1484-E (I) drier cooled —

1441	99.8	

1485-E (W.Cr.) Tanning solution - not cooled in drier.

made		insp.	prints		drop test
1415	98.9	93.2	1250	82.2%	16

1486-E (W.Cr.) Tanning Solution (not certain not cooled in drier?)

made					
1966	99%	73.6	1349	78.1	15

1496-E

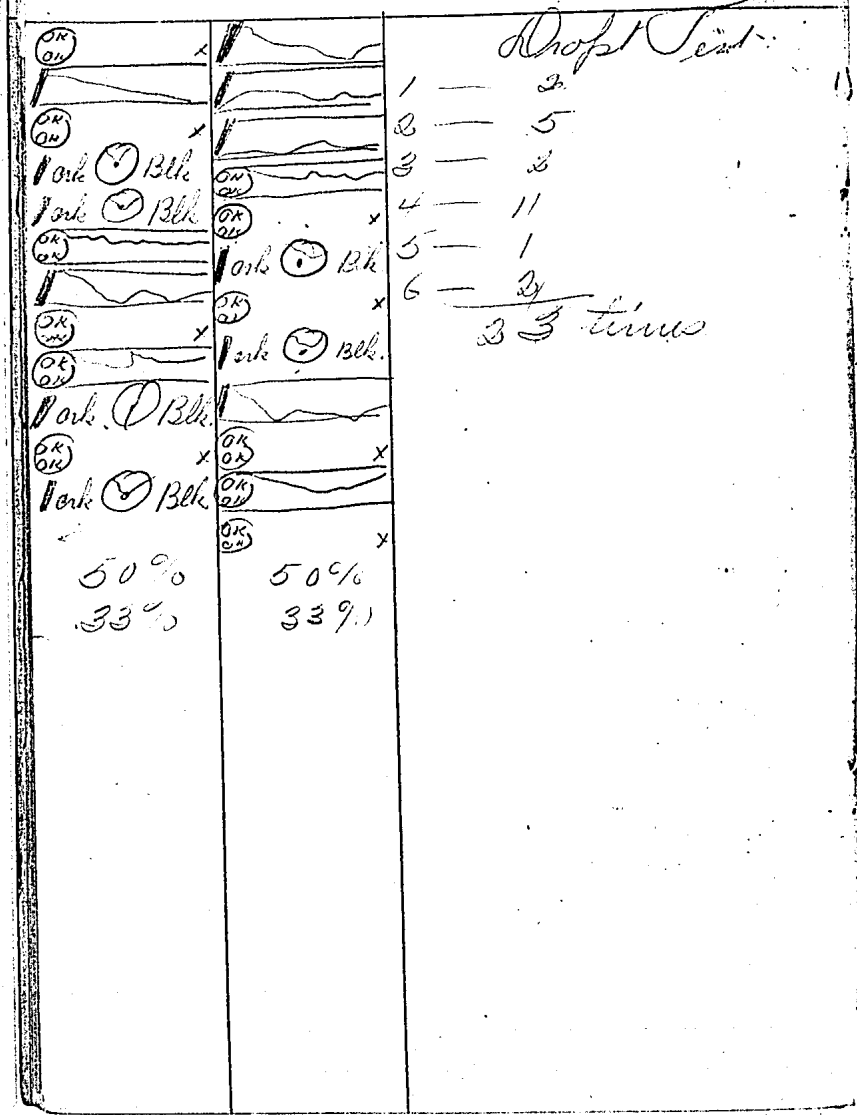
5/8/17

OK OK	OK OK	Drop test
OK OK	OK OK	1. — 6 times
OK OK	OK OK	2. — 7 " "
OK OK	OK OK	3. — 1 " "
OK OK	OK OK	4. — 20 " "
OK OK	OK OK	5. — 9 " "
OK OK	OK OK	6. — 13 " "
		56 times
OK OK	OK OK	
OK OK	OK OK	
OK OK	OK OK	
OK OK	OK OK	
OK OK	OK OK	
OK OK	OK OK	
OK OK	OK OK	
OK OK	OK OK	
OK OK	OK OK	
OK OK	OK OK	
100%	100%	
100%	100%	

1496-E marked 75A
Make 100 lbs only,
57 wood,
43 Chalk.
2 lampblack.
12 Rosin.
2 Ounces Castor Oil
54 lbs alcohol.
Send all to Miller in Building
(4) Save out 12 blanks.
to be varnished and finished regular.
Miller will put away 12 records and
the 12 blanks.
93 2/3 OK out of 45 Records.

(61)

1497-E



1497-E Marked 78-A.
Make one drier full—
Run wood thru Schultz-O'Neil grinder to break up lumps before mixing—
Same in every way as 1479-E
Car load of wood which we started to use April 30 was cared in lumps more than usual and gave trouble in the "Day" mixer.

1498-E

5/9/17.

OK OK	x	OK OK	x
OK OK	x	OK OK	x
OK OK	x	OK OK	x
OK OK	x		
OK OK	x	OK OK	x
OK OK	x	OK OK	x
OK OK	x	OK OK	x
		OK OK	x
OK OK	x	OK OK	x
OK OK	x	OK OK	x
OK OK	x	OK OK	x
OK OK	x	OK OK	x
100%		91%	
100%		91%	

Only 23 Blanks in this Lot

Drop test

1. — 1
2. — 7
3 — 2
4 — 2
5. — 15
6. — 3

30 times

1498-E

Duplicate of 1480-E ~~except that~~ ~~W.G. Rosin~~ USE W.G. Rosin also same as 1494-E except that W.G. Rosin is used.

Send 24 records to Miller

2009 Blanks made May 8.

100% O.K. in Blank Dept.

92 +% OK out of 732 Records.

79 2% OK out of 783 Records.

77% OK in Blanks.

[65]

1499-E

Ink	Blk			Drop test
OK	x	OK	x	
OK	x	OK	x	1. — 2
OK	x	OK	x	2. — 4
OK	x	OK	x	3. — 3
OK	x	OK	x	4. — 4
OK	x	OK	x	5 — 3
OK	x	OK	x	6 — 7
OK	x	OK	x	23 times
OK	x	OK	x	
OK	x	OK	x	
OK	x	OK	x	
OK	x	OK	x	
OK	x			
OK	x			
91%		100%		
		100%		
91%				

1499-E
Duplicate of 1484 except that wood is bottom up in Schultz O'Neil mill like 1497-E.
Use W. G. Rosin.
Send 24 Records to Millis.

89.3% OK out of 100 2 Records.
73 2/3% OK no Blanks.

1500-E 5/9/17.

OK OK	x	OK OK	x	Drop Test:
OK OK	x	OK OK	x	1. — 4
		OK OK	x	2. — 1
OK OK	x	OK OK	x	3. — 2
OK OK	x	OK OK	x	4. — 1
OK OK	x	OK OK	x	5. — 2
OK OK	x	OK OK	x	6. — 1
OK OK	x	OK OK	x	11 times
OK OK	x	OK OK	x	
OK OK	x	OK OK	x	
OK OK	x	OK OK	x	
OK OK	x	OK OK	x	
OK OK Chipped & Cracked		OK OK	x	
91%		100%		
83%		100%		

1500-E 57 lbs wood –
43 lbs chalk –
2 lbs lampblack –
10½ lbs Resin – (this is 7% of weight of 1500-E)
50 lbs alcohol –

Dry and grind these parts of above with one part of reground records
Send two loads to Willow

96% OK out of 1174 Records.
70+% OK on Blanks.

1501-E

5/9/17.

OK	x					
OK	x	OK	x			
OK	x	OK	x			
OK	x	OK	x			
OK	x	OK	x			
OK	x	OK	x			
OK	x	OK	x			
OK	x	OK	x			
OK	x	OK	x			
		OK	x			
OK	x	OK	x			
OK	x	OK	x			
91%		91%				
91%		91%				

Drop Test.

1 — 20
2 — 4
3 — 12
4 — 8
5 — 2
6 — 14

60 times

1501-E

Make up one drier pulp ~~[illegible]~~ 1479-E using ½ Norway wood and ½ regular department wood - note tests on each.

Much regular.

Send 24 to Miller.

85 9/10% OK out of 1037 Bends.
87.6% OK on Blanks.

1502-E

5/9/17.

OK OK	x	OK OK	x	Drop Test
OK OK	x	OK OK	x	1. — 20
OK OK	x	OK OK	x	2. — 20
OK OK	x	OK OK	x	3. — 20
OK OK	x	OK OK	x	4. — 8
OK OK	x	OK OK	x	5. — 8
OK OK	x	OK OK	x	6. — 5
OK OK	x	OK OK	x	81 times
OK OK	x	OK OK	x	
OK OK	x	OK OK	x	
OK OK	x	OK OK	x	
OK OK	x	OK OK	x	
OK OK	x	OK OK	x	
100 %		100 %		
100 %		100 %		

~~1484-E Make up one drier full~~
~~1479-E using 1/2 Norway wood~~

1502-E.

Make up one drier full 1480-E using 1/2 Norway wood and 1/2 regular Dupont wood - same as 1501-E

Send 24 records to Miller.

92 % OK out of 1750 Records
90 1/2 % OK on Blanks.

79-a. 5/7/17

OK OK	x	OK OK	x
		OK OK	x
OK OK	x	OK OK	x
OK OK	x	OK OK	x
		OK OK	x
OK OK	x	OK OK	x
OK OK	x	OK OK	x
		OK OK	x
OK OK	x	OK OK	x
OK OK	x	OK OK	x
OK OK	x	OK OK	x
OK OK	x	OK OK	x
		OK OK	x
		OK OK	x
100 %			x
100 %		100 %	
		100 %	

Drop tests

1 — 20
2 — 16
3 — 18
4 — 20
5 — 20
6 — 8
103 times

1503 — Hoffman's (no. 79.A)
Regular 1479-E) not screened.
2 rounds -
Mr. Edison says very rough surface - only used on regular moulds.
Indicates that the trouble is in the operation of screening,
without the old Crusher - ?

[75]

1504-E 5/9/17

Ok Ok	x	Ok Ok	x	Drop Test
Ok Ok	x	Ok Ok	x	1 — 6
Ok Ok	x	Ok Ok	x	2 — 4
Ok Ok	x	Ok Ok	x	3 — 9
Ok Ok	x	Ok Ok	x	4 — 3
Ok Ok	x	Ok Ok	x	5 — 3
Ok Ok	x	Ok Ok	x	6 — 2
Ok Ok	x	Ok Ok	x	27 times
Ok Ok	x	Ok Ok	x	
Ok Ok	x	Ok Ok	x	
Ok Ok	x	Ok Ok	x	
Ok Ok	x	Ok Ok	x	
100%		100%		
100%		100%		

1504-E
57 lbs wood flour
23 lbs chalk
2 lbs lampblack
10 lbs Rosin W.C.T.
50 lbs alcohol
Make one drum full.
Send 2 rounds to Miller for inspection and drop test.

97 5/9 % Ok out of 587 Rounds.
74% Ok on Blanks.

1505-E 5/10/17.

OK OK	×	OK OK ×
OK OK	×	OK OK ×
OK OK	×	OK OK ×
OK OK	×	OK OK ×
OK OK	×	OK OK ×
OK OK	×	OK OK ×
OK OK	×	OK OK ×
OK OK	×	OK OK ×
OK OK	×	OK OK ×
OK OK	×	OK OK ×
OK OK	×	OK OK ×
OK OK	×	OK OK ×
OK OK	×	OK OK ×
100%		100%
100%		100%

Drop test
1. — 5
2. — 1
3. — 6
4. — 2
5. — 4
6. — 20
38 times

1505-E Screened
57 lbs wood fiber
43 lbs chalk
2 lbs campblack
11 lbs Rosin W.G.
50 lbs Alcohol
Make one chip full
Send ~~two~~ 20 rounds to Miller for inspection and drop test.

95-8% OK out of 1172 Records.
82 4/5% OK on blanks.

1506-E 5/9/17.

OK	x	OK	x
OK	x	OK	x
OK	x	OK	x
OK	x	OK	x
OK	x	OK	x
		OK	x
OK	x	OK	x
OK	x	OK	x
OK	x	OK	x
OK	x	OK	x
OK	x	OK	x
OK	x	OK	x
OK	x	OK	x
OK	x	OK	x
OK	x		
91%		100%	
91%		100%	

Drop test

1. — 17
2. — 18
3. — 1
4. — 8
5 — 7
6. — 9

60

1506-E

Make 500 blanks from regular 1479-E Powder just as it leaves the mills without screening.

Keep record of % passing 180 screen and % passing 350 mesh screen as with the finished powder.

Print two prints from Mr. Edison's test moulds and also two rounds on a load of new moulds, also print the same on regular work for comparison. Deliver to Miller and balance report on separate,

495 blanks made 100 % in Blank Dept.
430 blanks OK on inspection 86 8/10 % OK.
403 Records inspected 96 5/10 % OK.
1 disc for parallel crack.
2 low spots.

fineness of powder { 91% 180 / 72% 350

Surface on unscreened blanks decidedly worse —

96.5% OK on of 403 records.
86.8% OK on blanks.

C817

1507-E 5/10/17.

OK	x	OK	x	Drop test		
OK	x	OK	x	1. — 1		
OK	x	OK	x	2. — 2		
OK	x	OK	x	3. — 1:4		
OK	x	OK	x	4. — 9		
OK	x	OK	x	5. — 6		
OK	x	OK	x	6. — 4		
OK	x	OK	x	36 times		
OK	x	OK	x			
OK	x	OK	x	1507-E Saturday 5/12/17.		
OK	x	OK	x	OK x	OK x	Drop test
OK	x	OK	x	OK x	OK x	1 — 1
				OK x	OK x	2 — 1
100 %		100 %		OK x	OK x	3 — 12
				OK x	OK x	4 — 4
100 %.		100 %		OK x	OK x	5 — 1
				OK x	OK x	6 — 2
				OK x	OK x	21 times
				OK x	OK x	
				OK x	OK x	
				OK x	OK x	
				OK x	OK x	
				100%	100%	
				100%	100%	

1507-E -

One dierfull -
57 wood,
43 chalk,
2 lampblack
12 Rosin
1 (ounce) castor oil
54 lbs alcohol -
Send 2 rounds to miller for inspection and drop test.

94.9 OK out of 984 Recorded
87.5 on Blank.

1508-E 5/9/17

OK	x	OK	x	Drop Test		
OK	x	OK	x	1. — 3		
OK	x			2. — 8		
OK	x	OK	x	3. — 1		
OK	x	OK	x	4. — 11		
OK	x	OK	x	5. — 2		
OK	x	OK	x	6. — 10		
OK	x	OK	x	3.5 times		
OK	x	OK	x			
OK	x	OK	x	1508-E		5/10/17
OK	x	OK	x	OK x	OK x	Drop test
OK	x	OK	x	OK x	OK x	1 — 5
				OK x	OK x	2 — 1
100%		91%		OK x	OK x	3 — 2
				OK x	OK x	4 — 5
100%		91%		OK x	OK x	5 — 13
				OK x	OK x	6 — 20
				OK x	OK x	4.6 times
				OK	OK x	
					OK x	
				OK x	OK x	
				OK x	OK x	
				83%	100%	
				83%	100%	

1508-E

Make up one drier full regular 1479-E powder except run drier for a shorter time to leave a trace of alcohol in powder and send Miller schedule on which it is run to pent in Broth. also 2 rounds records for inspection.

Drier Run 2 hours - Temp powder when vacuum broke 138° F highest point. Powder given flame test. no alcohol indicated, altho powder seemed damp. glass on drier had beads of moisture on inside.

Moisture test 1.6%

Grinder sample 90% 180 77% 350
Moulding sample 97% 180 88% 350
936 blanks made 100% OK. in Blank Dept.
77.2% OK on inspection
724 Records inspected 86.5% OK.

94.3% OK out of 672 Records.
78.8% OK on blanks.

1509-E

5/19/17.

OK OK	x	OK OK	x	Drop Test
OK OK	x	OK OK	x	1. — 4
OK OK	x	OK OK	x	2. — 16
OK OK	x	OK OK	x	3. — 11
OK OK	x	OK OK	x	4. — 13
OK OK	x	OK OK	x	5. — 2
OK OK	x	OK OK	x	6. — 7
OK OK	x	OK OK		53
OK OK	x	OK OK	x	
OK OK	x	OK OK	x	
OK OK	x	OK OK	x	
OK OK	x	OK OK	x	
100%		100%		
100%		91%		

1509-E

Same as 1506 except run thru final screen.
Note time from mill to mixer.
25 minutes from mill to mixer

97% OK out of 700 Pounds. do
96% OK on Floor.

1510-E 5/10/17

OK OK	x	OK OK	x	Drop test
OK OK	x	OK OK	x	1 — 7
OK OK	x	OK OK	x	2 — 1
OK OK	x	OK OK	x	3 — 8
OK OK	x	OK OK	x	4 — 4
OK OK	x	OK OK	x	5 — 4
OK OK	x	OK OK	x	6 — 5
OK OK	x	OK OK	x	29 times
OK OK	x	OK OK	x	
OK OK	x	OK OK	x	
OK OK	x	OK OK	x	
OK OK	x	OK OK	x	
100%		100%		
100%		100%		

1510-E

57 wood
43 chalk
2 lampblack
13 lbs rosin (1 rosin)
50 lbs alcohol
Make one drier full
Regular all than —

1511-E

5/16/17.

OK	x
OK	x
OK	x
OK	x
OK	x
OK	x
OK	x
OK	x
OK	x
OK	x
OK	x
Pull Outs & Mus's	
91%	
91%	
Drop tests	
1 — 20	
2 — 20	
3 — 20	
4 — 20	
5 — 20	
6 — 20	
120	

Every one of these records has a fine surface, no cracks. But all have a run out made by dots which can be seen by Eye — These are undoubtedly due to the balled up Cotton flock

a long hair not a pull out

Hoffman says, Moulds working with Tamin self-blade removes 1/16 above mould rings Secure 1/4" strike off - leaves moulds clean Run on 1261 schedule Blanks Calliper 217 to 225 12 Blanks made all OK 100% — too thin

Records Calliper
180 — 189 — 187.1
Too thin

1511-E

Take some regular powder screened, put in some Cotton flock — For Every 16 lbs of Reg powder add 1 lb of flock Mix it thoroughly in the Mixer, Make 12 Good blanks —

Print on new moulds or Comparatively new moulds —

[91]

Wait—

1512

Make One Dryer full
of powder Regular, Except
~~add~~ Make it 3½ wood
½ Cotton flock 3 Chalk
& Reg Preparation of
Resin — Screen &
Run Reg ~~[illegible]~~
& Send 24 to Edison

1513-E 5/15/17

OK OK	x	OK OK	x	Drop test
OK OK	x	OK OK	x	1 — 1
OK OK	x	OK OK	x	2 — 2
OK OK	x	OK OK	x	3 — 5
OK OK	x	OK OK	x	4 — 1
OK OK	x	OK OK	x	5 — 4
OK OK	x	OK OK	x	6 — 1
OK OK	x	OK OK	x	14 times
OK OK	x	OK OK	x	
OK OK	x	OK OK	x	
OK OK	x	OK OK	x	
OK OK	x	OK OK	x	
100%		100%		
100%		100%		

1513-E
Same mix as 1505-E but dried like 1508-
Make one drier.

1514-E

5/15/17

OK	x	OK	x	Drop test
OK	x	OK	x	1 — 2
OK	x	OK	x	2 — 3
OK	x	OK	x	3 — 3
OK	x	OK	x	4 — 1
OK	x	OK	x	5 — 2
OK	x	OK	x	6 — 1
OK	x	OK	x	12 lines
OK	x	OK	x	
OK	x	OK	x	
OK	x	OK	x	
OK	x	OK	x	
OK	x	OK	x	
OK	x	OK	x	
100 %		91 %		
100 %		91 %		

1514-E

Same as 1505-E but use one half Dupont and ½ Norway wood, Maine one drier full

1515-E

OK	x
OK	x
OK	x
OK	x
OK	x
OK	x
OK	x
OK	x
OK	x
OK	x
OK	x

91%

91%

1515

Duplicate 1511 but use for Every 16 lbs of Reg mix only 1/2 lb of Cotton flock —

Run same as 1511 —

OK	x	Calliper	172.1
OK	x		181.1
OK	x		175.1
OK	x		170.1
OK	x		181.1

New moulds used, surface fair very few cracks, Micro shows moulds themselves has big scratches, Round disc marks fore + many other defects + rough looking smooth part.

Drop test all went 20 one we dropped 100 times this showed a radial crack very fine from edge not reaching metal + would pass. Continued dropping till went 300 didn't break

We now drop at 5 ft on hard floor. Broke on 35th drop

Entirely too much flock 1/4 of amount probably lost it

1516

Dallas Machine, Cotton flock thru resolving screens flock falling into mixer — to 450 grm Reg Mix, dry added 21 @ 22 grams flock

4 @ 5 blanks made —

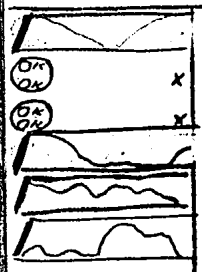
Print on Reg Moulds

Make test for surface & Drop Test

Printed on New Moulds

Notice on broken Edges one clot fibre 1/32 dia —

1517-E



Drop test	Calipers point
1 — 20	.184.1
2 — 20	.189
3 — 19	.186.1
4 — 20	.190
5 — 20	.195
6 — 20	
119	191

Mfg Edison Remarks.
One after drop [illegible] was thrown onto floor 7 times hole.
Notice several specks more white small clots of fibre also fibre poorly distributed

1517

Dup of 1516 — but only 15 grams flock -

1518-E 5/2

OK OK	x	Dup. tab		Bulfpro points
OK OK	x	1	20	.207
OK OK		2	20	.205.1
OK OK	x	3	20	201.1
		4	20	.207
OK OK	x	5	20	.208
OK OK	FERNS	6	20	.206
			120	

1518

Dup 1516 –

But only 10 grams flask

[105]

1519-E

5/2/117

		Drop test	Calipers prints
OK OK	x	1 — 8	.203.1
OK OK	x	2 — 8	.206.1
OK OK	x	3 — 20	.209
OK OK	x	4 — 20	.206
OK OK	x	5 — 20	.203
OK OK	x	6 — 3	.203
		79	

1519 —

Dup 1516 —

But only 5 grams flock

1520 5/12/17

		Drop test	Calipers points
OK OK	x		
OK OK	x	1 — 4	.195
OK OK	x	2 — 9	.193.1
		3 — 20	.207
		4 — 20	.208
OK OK	x	5 — 20	.205.1
OK OK	x	6 — 20	.211
		93	

1520

Dup of 1516 — But no flock at all

1521-E

		Drop test		Calipes points
OK JN	x	1. —	20	.203
OK JN	x	2. —	20	.216
OK JN	x	3. —	20	.211
OK JN	x	4. —	20	.196
OK JN		5. —	20	.216.1
OK JN	x	6. —	20	.199
OK JN	x		120	

1521 E

Hoffman grinds some powder in Mill at Storehouse mixing flock gradually in the Mill as powder is being ground

Make 1/2 doz blanks + print -

Add 6 grams flock for each lb of powder

C111J

1522-E

6/5/17

		Drop. Test.	Califico points
OK OK	x	1 — 20	.202
OK OK	x	2 — 20	.187
OK OK	x	3 — 20	.191.1
OK OK	x	4 — 20	.187.1
OK OK	x	5 — 20	.191.1
OK OK	x	6 — 6	
		106 turns	
100%		Surfaces bad due to dots	
100%		of fibre.	

1522-E Duplicate of 1516-E

Except Cotton stock, separate with a different machine

20 grams of fibers to 150 pounds

6 hands of seen fibers

send to Editors

1523-E 6/6/17

		Drop test	Caliper point
OK QA	x		
OK QA	x	1 — 20	.202
OK QA	x	2 — 20	.200
OK QA	x	3 — 20	.209
OK QA	x	4 — 20	.188.1
OK QA		5 — 18	.193
OK QA		6 — 20	.191.1
		118 times	

Surface fuse all fire Rund Pu
due to dots in fire

1523-E Dup. of 1522-E
Except 15 grams of flock
6 blanks of each

C115J

6/6/17

1524-E

	Drop test	Calipers points
OK OK x	1 — 20	.185.1
OK OK x	2 — 15	.192
	3 — 20	.193.1
OK OK x	4 — 12	.190.1
OK OK x	5 — 20	.194.1
	6 — 20	195.1
	10.7 turns	

83%

53%

1524-E Dup of 1528-E
Except 10 grains of flock.
6 blanks of wads

1525-E

		Drop	test	Calipro points
OK OK	x			
OK OK	x	1	— 20	194.1
OK OK	x	2	— 20	197
OK OK	x	3	— 13	194
OK OK	x	4	— 20	199.1
OK OK	x	5	— 20	204.1
		6	— 20	192.1
			113 turns	

1525-E Dup of 1522
Except 5 grand of flock
6 blanks of each

1526-E

		Drops lost	Calibrated points
OK OK	x		
OK OK	x	1 — 20	197.1
		2 — 20	202.1
OK OK	x	3 — 4	205.1
OK OK	x	4 — 20	190.1
OK OK	x	5 — 16	[illegible]
		6 — 6	195.1
91%		86 trials	
91%			

1526-E Blanks made into out flocs.

6 blanks of each.

1527-E

6/8/17

	Drop	Tests	Calibre points
	1. —	20 Chip-pied on Edge	179
×	2. —	20	173.1
×	3. —	20	174
	4. —	20	182
×	5. —	20	167
	6. —	20	166.1
83%		120 tries	

75% Surface Run Outs in every one of tries.

1527-E

450 grain powder 20 grain flock pieces in Day Imperial Bullet (Broad Heads) run for 1½ hrs. thru fine triangle 20 mesh screen 30 to 50 grades premanned on screens, Cotton flock are spread up powder so flocks found

1528-E 6/5/17

	Drop test	Califes points
	1. — 20	.181.1
	2. — 20	.183
	3. — 20	.185.1
	4. — 20	180.1
	5. — 20	.178
	6. — 20	.177.1
	120 times	

16%

16%

1528-E

450 [illegible]

[illegible] through

20 mesh screen, 5 to 6% [illegible]

of flocks [illegible]

CQS

6/8/17

1529-E

OK OK ×

OK OK ×

OK OK ×

OK OK ×

OK OK ×

OK OK ×

OK OK ×

OK OK ×

OK OK ×

75%

75%

1529-E

Varnish [illegible]

[illegible] Varnish with the 2nd Coat, Put in Oven, and [illegible] there out with my [illegible].

After you have [illegible]

1530-E 6/8/17

	Chop.	Feet	Calipes points
		20	.189
		20	.195
		20	.194.1
		20	.215.1
		20	.195.1
		20	.212.1
		120	

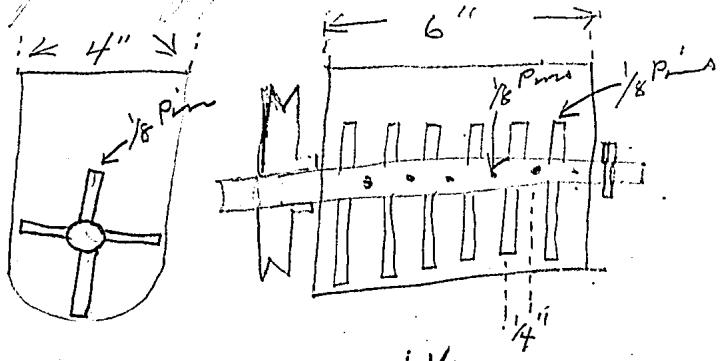
75%

75%

1530 E

450 gauge bowls [illegible]
Put in Hulls, [illegible]
Speed 1700, [illegible]

Put [illegible] gauge [illegible]
4 gauge of [illegible]



3 1/4 Blocks
10000

6/8/17.

1531-E

OK x
OK x
OK x
OK x
OK x
OK x
OK x
OK x
OK x
OK x
OK x
OK x
OK x

1000

1531-E

Take 12 blanks that have been varnished and baked regular and revarnish and bake again and then print regular. Varnish two extra blanks and send them down to Willa with the prints.

C131J

1532-E 6/5/7

		Drop test	Calif. co. point
OK	x		
OK	x	1. — 20	.200.1
OK	x	2. — 20	.196.1
OK	x	3. — 20	.197
		4. — 20	.207.1
		5. — 20	.199.1
		6. — 20	.202
53%		120 turns	
53%			

1532E Duplicate of 1530E
Except used 5 grains of Bullseye
450 Powder at little less than
2 grains short remaining on 20
fresh powder

1533-E 6/8/17

Drop test	Calipers points
1. — 20	.201
2. — 20	.184
3. — 20	.1941
4. — 20	.196.1
5. — 20	.195.1
6. — 20	.194.1
120 times	

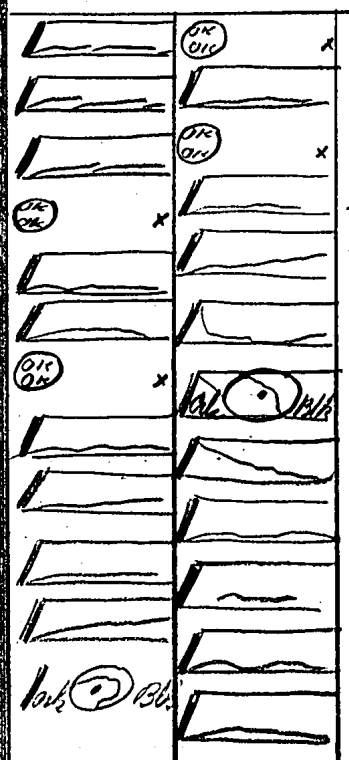
1533-E

Drop of 1533 Graft used 15 [illegible] 458 [illegible] pounds 5½ No 8 gloves [illegible] on pouch.

C135J

1534-E

6/12/17



Drop test

1. — 20
2 — 8
3 — 2
4 — 4
5 — 10
6 — 20

64 times

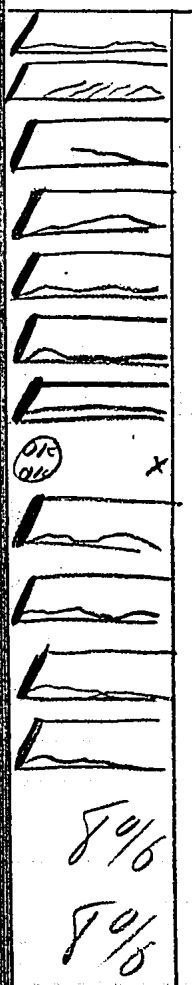
1534-E

57 lbs wood filler
43 lbs chalk
2 lbs lampblack
1 1/2 lbs Rosin
50 lbs Alcohol

Make 4 driers full—
send two rounds to Millin for
inspection and drop test.

35.2% OK out of 3048 Rounds
96.5% OK no blanks.
44.7% OK out of 1728

1535-E



1535-E

Make two dryers regular 1505 powder but after mixing dry in Imperial mixer run thru the Schultz O'neil Mill and then put back in imperial mixer after weighing carefully and mix gum regular way.

Make regular send 2 rounds to miller in Building 4 —

44.5% OK out of 1246 Records.
64.4% OK on Blanks.

1536-E		1536-E-2 6/15/11	
		1536-E-2	1536-E-2
	Dark (E) Blk		
OK Oil		OK Oil	
		OK Oil	
		OK Oil	
		OK Oil	
		OK Oil	
		OK Oil	
		OK Oil	
		OK Oil	
	OK Oil		
8%	8%	41%	75%
8%	8%	41%	75%

1536-E -

Notice five driers regular 1505-E powder but run all of the wood flour thru the Schultz-O'neil mill before mixing to break it up thoroly.

Make regular - send 2 rounds to miller in Building 4 -

Send 500 blanks to Kinder marked 1536-E-2 which you will mould on the old schedule - 2 rounds of this also to miller.

C141J

1537-E

	Drop test	Bulk in points
	1 — 20	.191
	2 — 20	.193
	3 — 20	.191
OK	x 4 — 20	.202
OK	x 5 — 20	.202
OK	x 6 — 20	.191
OK	x 120 trials	

83%

85%

1537-E

Drop of 1530-E Coeff.
used 10 grams Raw Cotton flock.
1½ grams flock remained on screen.
Raw flock was longer fiber

1

2

1538-E

OK OK	x	
OK OK	x	
OK OK	x	
OK OK	x	
OK OK	x	OK OK x
OK OK	x	OK OK x
OK OK	x	OK OK x
OK OK	x	
OK OK	x	
OK OK	x	
		OK OK x
OK OK	x	
53%		41%
53%		41%

Drop test

1 — 3
2 — 15
3 — 1
4 — 3
5 — 10
6 — 6

38 times

1538-E

~~Add~~ about 1% of cotton flock from sample obtained by Mr Hanlon to the powder (1505-E) as it is fed to the mill — about 1700 lb powder made — no clogging of mill screens. Mould and varnish and print regular. Send 6 blanks to mills and 2 varnished blanks and two rounds for inspection and drop test.

Cotton flock does not separate on screening
60.3% OK out of 648 Records.
95.1% OK on blanks.

6/12/17.

1539-E

		Drop test
OK OK x	OK OK	1. — 3
OK OK x	OK OK x	2. — 2
OK OK x	OK OK x	3. — 1
		4. — 8
OK OK x		5. — 1
OK OK x	OK OK x	6. — 1
	OK OK x	16 times
OK OK x	OK OK x	
	OK OK x	
OK OK x	OK OK x	
68%	68%	
68%	58%	

1539-E

Add about 2% of cotton floc to the powder as it is fed to the mills. (One pound to each bag of unground powder.)

Mould, varnish and print regular. Send six blanks to Miller also two varnished blanks and two rounds of records for inspection, t. and drop test.

35.2% OK out of 761 Records
96.2% OK. on blanks.

1540-E

OK OK	
	OK OK
	OK OK
OK OK	
16%	16%
16%	16%

1540-E

Make one drier full 1505-powder from Dupont wood flour that has been dried in vacuum drier. Make test of % of moisture remaining in the wood flour.

Make test of moisture remaining after powder is dried.

Mould and varnish and print regular.

Send two rounds to Miller -

Send Miller result of moisture tests.

This wood flour is to be broken up by passing thru 8 mesh screen before drying.

Moisture in Wood 1.1%
Powder No Moisture

1541-E

6/15/17

OK OK	x	OK OK x
OK OK	x	OK OK x
OK OK	x	OK OK x
OK OK	x	OK OK x
OK OK	x	
OK OK	x	OK OK x
OK OK	x	
OK OK	x	
OK OK	x	
OK OK	x	
OK OK	x	
91%		41%
91%		41%

Drop Test

1 — 1

2 — 1

3 — 1

4 — 4

5 — 1

6 — 1

total 9 times

1541-E

Repeat 1539-E with wood flour that has been broken up by passing thru the 8-mesh screen and then dried in the vacuum drier – like 1540

Wood – 45 Moisture

Powder No Moisture

549 the print no signs of wear on Mould

1542-E

2-Moulds made with nickel preliminary plating .010 thick - backed up with copper - Send the 3d - 20th - 40th and every 20th print also last print to Miller for Mr. Edison.

1543-E

6/13/17

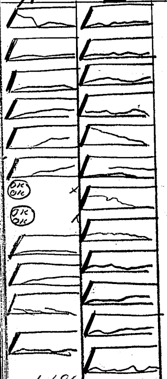
1543 E

Print 12 blanks just as they are without side square edge Edging — Varnish Regular

Worse

C1553

A B



16%
16% 0%
8% average

1544 E

Make 24 blanks old
Schedule (not 1261)
Send to Kircher,
Hs showed ~~[illegible]~~
Leave 12 marked A unedged + print
with square Edge
+ the other 12 are to
be Edged the way its
done now + printed
Call these B
Both sets unmarked
Regular way

This Mould was called of after making 335 prints and discarded for Mottled Surface had Mr Edison & Mr Dunwoddie listen Surface sound good but Mottled back on bagging.
405 prints Good Surface.
503 prints 3/4 inch pin crack Ok.
625 prints Surface seems to be getting better no signs of wear.

818th Print call off for Mottled Mould shows no sign of wear.

6/3/17

1545E

Nickel on their Moulds 007

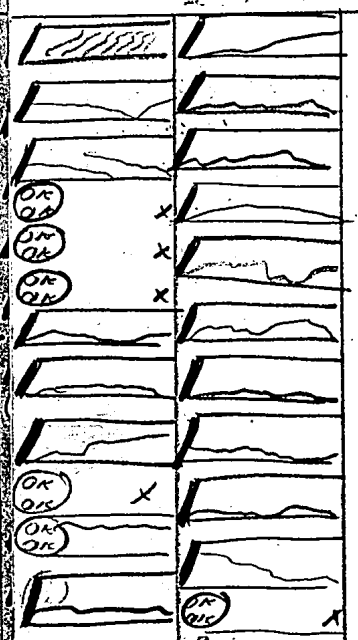
This is a Nickel Mould, both sides 10th print & 138th print both have smooth contemporaneous general surface, but both have cracks very considerable more on 138th than on 10th & but not very much, I notice Mottled is larger on 138th than 10th, the 10th is hard to see while 138th is easy to see the pressure has increased their size

On both are large O pits varying from 005 To 020, all are generally round. The moulds show scratches probably in 2nd measles, Pits may be also – The waves of 138th seem to be absolutely uninjured at start & not scratched with finest scratches like Copper Moulds –

260th does not show a single scratch & seems absolutely uninjured

Mottle seems larger.

1546-E 6/13/1



1546-E Dup. of 1505-E

Except half Norway Wood & half Dupont Wood. Dupont wood screened through #4 screen

Mostly Dow & print regular.

Du Pont wood is very wet —

C1613

1547-E

		Caliper points
OK OK	FERNS	
		.207
OK OK	x	.199
OK OK		.204
OK OK	x	.200.1
OK OK	x	.191.1
OK OK	x	195.1
OK OK	x	
OK OK	x	

66⅔% Comd

50 perfect

3 blanks were ok before Varnishing but after Varnishing they showed Edge Cracks before they went in the oven

Have the samples

1547 E

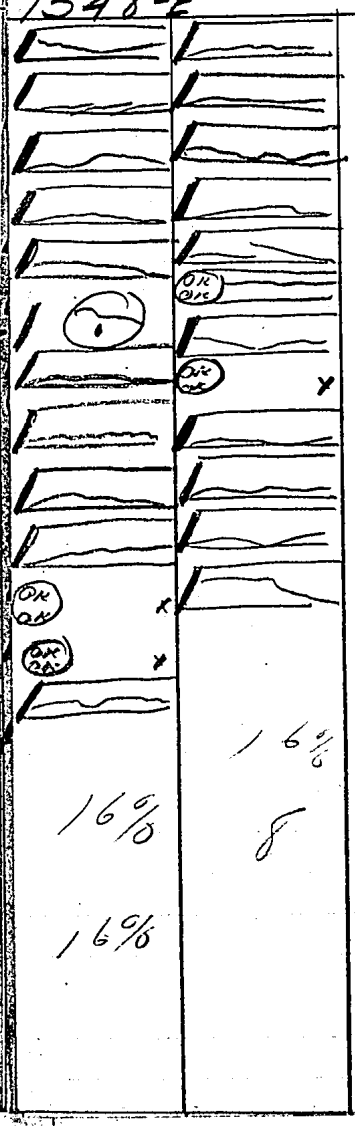
Hoffman

Dally takes enough powder (req) & puts in 1% (about) of Raw Cotton fibre -

Make 12 Blanks, Edge Print & Varnish Regular

6/18/17

1548-E



1548E

Duplicate 1531
print 24 blanks

1549-E

4/13/19

Inspected up-stairs

Recd.	Cracks.	Oks.	
72	66	6	7½%
60	41	19	32
192	166	26	14%
84	65	19	22%
408	338	78	

17.15% OK.

12½%
8%

1549E

Printed with border pressure at 110 at regulator instead of 120.

Run pressers this way for 3 hours

14.3% OK out of 944 Records.

1 to 9 3

7.2% OK out of 838 Records printed on Regular stairs Pressure 120 lbs.

6/13/17

1550-E

1550 E

Regulator set at 100 degrees steam instead of 120 as regular — print on other work process 3 hours

8.9% OK out of 381 Records

6/15/17

1551 E

Moulds with fixed lines on Edge —

No Good.

1552-E

		Calipers points
OK	×	.209
odk (1) Blk		.224
OK	×	.208.1
OK	×	.212
		.234.1
		.223
odk (1) Blk		
85%		
25%		

Note 2 blanks Cracked clear across

1552-E

8 lbs powder

Add 1/2 of Air slaked Lime — & mixed thoroughly

Gas & Acid regulates

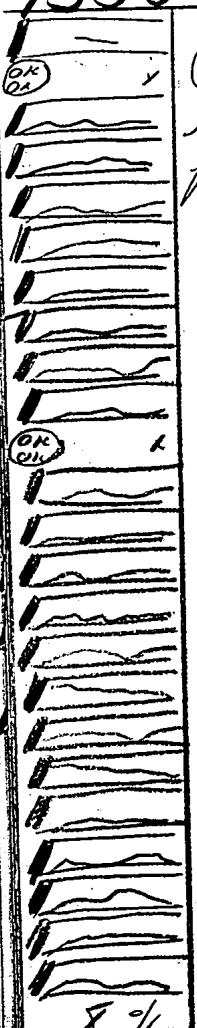
Slab line out of Bottle in Chemical room.

Made 7 blanks

Mr. Gray the Night Supt said these blanks showed numbers of little white specks in surface before being varnished

6/13/17

1553-E



This Experiment was run on 750 hydraulic pressure instead of 850

no Better

21 % OK out of 420 Records

1554-E

Regular Blanks made to day 6/13/17

put through Dropper test

1 – 2
2 – 4
3 – 4
4 – 1
5 – 2
6 – 1
7 – 1
8 – 1
9 – 2

18 times

average 2 drops each

6/15/17

1555-E

Pck Blk

Pck Blk

Pck Blk

6 blanks rejection account of cracks

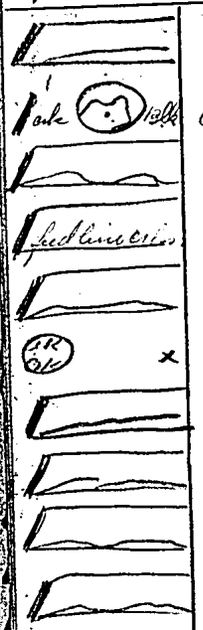
1555-E

12 blanks loaded in center and rated off toward edges all around

Mr. Gray reports that blanks developed cracks before varnishing 3 cracked when varnished on one side & 2 cracked in oven

6/15/17

1556-E

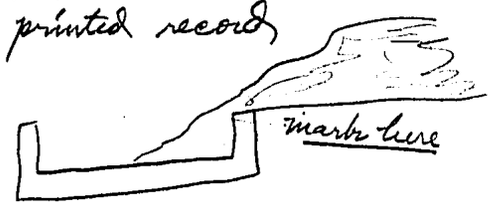


2 blanks not printed due to orders.

8.

1556-E

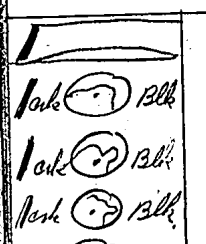
12 blanks loaded on one side as usual and that side marked so that we will know it on the printed record



2 blanks duplicate orders on Order.

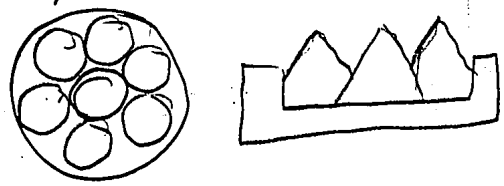
1557-E

6/15/17



3 blanks after Varnishing
show ones near the Edge
did not print threw

1557-E
Load 12 blanks in seven little conical piles and then strike off.



6/15/17

1558-E

OK OK ×

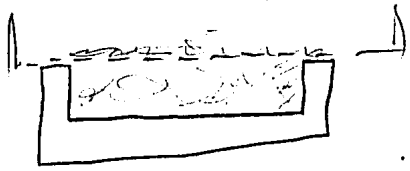
OK OK ×

16%

16%

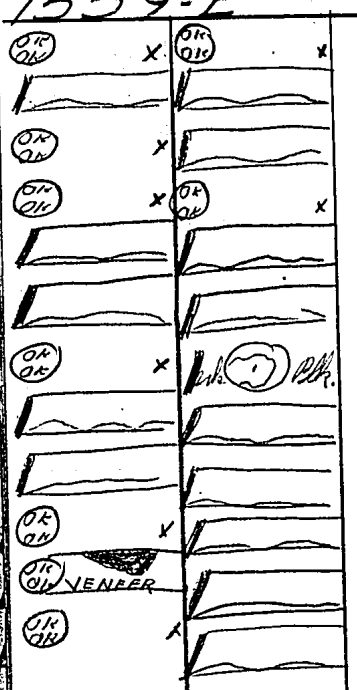
1558-E

load 12 Blanks then run 8-mesh sifter and then strike off as usual-



6/15/17

1559-E

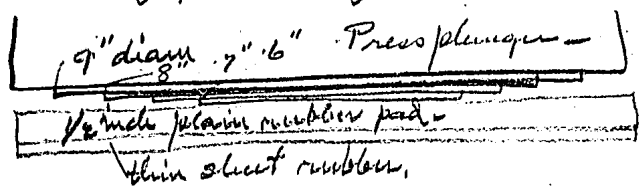


58% 16%

50% 16%

1559-E

Make 24 blanks with discs of cardboard used to build up the center of plunger of the rubber press.



C(85)

6/15/17

1560-E

OK OK	x
OK OK	x
OK OK	x
OK OK	x
OK OK	x
OK OK	x
OK OK	x
OK OK	x
OK OK	x
OK OK	x
FERNS	
75%	
75%	

Out is 83%

See also following 1580E Book #22

1560-E

Make 12 blanks - with a piece of felt on blanks in place of the thin rubber in the rubber press,

1560-E Made as Regular Sheets

OK OK x	OK OK x		OK OK x
OK OK x	OK OK		OK OK x
	OK OK x	OK OK x	OK OK x
		OK OK x	OK OK x
		OK OK x	OK OK x
OK OK x	OK OK x	OK OK x	OK OK x
	OK OK x	OK OK x	OK OK
	OK OK x		
	OK OK x	OK OK x	
OK OK x	OK OK x	OK OK x	
OK OK x	OK OK x	OK OK x	
	OK OK x		OK OK x
	OK OK x		
OK OK x			
50%	91%	58%	66%
50%	83%	58%	58%
47.2% OK out of		44 Records	66.6.

700 lbs pressure on Rubber press	630 lbs on Rubber press
1561-E	1562-E
	OK OK ×
OK OK ×	
	OK OK ×
	OK OK ×
	OK OK ×
	OK OK ×
	OK OK ×
	OK OK ×
OK OK ×	
16%	58%
16%	58%

1561-E	12 blankets	700 lbs	Rubber Press pressure on	16%
1562-E	12 "	630 "	"	58% Bam.
1563-E	12 "	560 "	"	66%
1564-E	12 "	490 "	"	83%
1565-E	12 "	420 "	"	41%
1566-E	12 "	350 "	"	50%

Send all to Miller for inspection — Regular 1505-E in every way except variation of pressure on rubber press, should varnish and print regular —

560 lbs pressure
1563-E

OK OK x
OK OK x
OK OK x
OK OK x
OK OK x
OK OK x
OK OK x
OK OK x

66%
66%

490 lbs pressure
1564-E

OK OK x
OK OK x
OK OK x
OK OK x
OK OK x
OK OK x
OK OK x
OK OK x
OK OK x
OK OK x

83%
83%

420 lbs pressure
1565-E

OK OK x
OK OK x
OK OK x
Broken edge
OK OK x
OK OK x

41%
41%

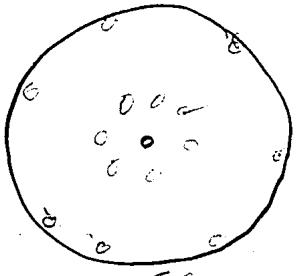
35- lbs pressure
1566-E

OK OK x
OK OK x
OK OK x
OK OK x
OK OK x
OK OK x

50%
50%

1567-E

Make screen tests on powder taken from near the center and from within ½ inch of the edge of a blank just as it comes from the rubber press,



samples near center

samples near edge

Edge	98%	180
	74%	350
Center	98%	180
	74%	350

evidently motion of powder and air toward the edge causes no segregation —

June 15-17

Discovery of an important Principle

The powder in the rubber packing-press must be considered as a mixture of powder and air, and we must get rid of the air.

Note 1560-E and further experiments in

BOOK 22

[ITEM(S) FOUND IN BOOK]

Vacuum dryer system changed to water cool Apr 24.

Vacuum dryer system changed to decrease exhaust pressure Apr 24

Vacuum dryer system changed to double exhaust several weeks earlier.

[ITEM(S) FOUND IN BOOK]

210
199 / 215 — 1207
204

189
198 / 195 — 199
209

207
195 / 213 — 204
200

212
208 / 193 — 200-1
188

189
187 / 196 — 191.1
194

209
205 / 182 — 195.1
201